



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/760,267	01/12/2001	Shimon G. Ziv-el		2649

7590

04/01/2004

SHEREE JOHNSOH-GREGORY  
EDUCATIONAL TESTING SERVICE  
ROSEDALE ROAD, MAILSTOP 380  
PRINCETON, NJ 08544

EXAMINER

HARRIS, CHANDA L

ART UNIT PAPER NUMBER

3714

16

DATE MAILED: 04/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/760,267

Applicant(s)

ZIV-EL ET AL.

Examiner

Chanda L. Harris

Art Unit

3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-16,18-25,27-35 and 37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7,9-16,18-25,27-35 and 37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Status of Claims***

In response to the Amendment filed on 12/9/03, Claims 1-7, 9-16, 18-25, 27-35, and 37 are pending. Claims 8, 17, 26, and 36 are cancelled.

### ***Specification***

The use of the trademark JAVA has been noted in this application. Applicant is required to review the specification for any other instances of trademarks and make the appropriate corrections. They should be capitalized wherever they appear and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-7, 9-12, 15-16, 18-19, 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ziv-EI (US 5,437,555) in view of Pellegrino (US 6,149,441).**

1. [Claims 1,18]: Regarding Claims 1 and 18, Ziv-EI discloses a plurality of student computers (i.e. terminals), each having an input device (i.e. alpha-numeric keyboard) and a screen (i.e. multi-line LCD), and having at least one teacher's computer (i.e. teacher computer) including an input device (i.e. keyboard) and a screen. See Col.1: 48-56, Col.13: 47-52, FIG.1 and FIG.6. Ziv-EI discloses at least one data storage server for storage of lessons (i.e. Lesson Storage Buffer), said lessons including exercises having questions (i.e. programmed questions) and multi-character answers. See Col.3: 31-43 and Col.16: 52-64. Ziv-EI discloses a response server (i.e. response buffer) in communication with the student computers for processing student responses. See Col.11: 45-51. Ziv-EI discloses wherein the student computer includes program instructions for immediately transmitting each character resulting from an input on the student computer, to the response server (i.e. reinforcement provided on every letter); and further comprising comparison and evaluation of the character with a homologous character of at least one answer to the question. See Col.10: 65-Col.11: 2. Ziv-EI discloses wherein the teacher's computer includes program instructions for the teacher's screen to be contemporaneously responsive to the character from a student keystroke and to a result of the comparison and evaluation. See Col.3: 60-62 and Col.17: 18-21.

Ziv-EI does not disclose expressly lessons including exercises having Uniform

Resource Locators (URLs); Web browsers on the teacher's computer and the student computers for communicating through a Web server in response to URLs received from the teacher and student computers; wherein a teacher's computer and the students' computers include program instructions responsive to inputs to cause an exercise, including a Web page relating to a URL, to be displayed on the screen of at least one of the student computers; selectable links and immediately transmitting the URL from each link selected and each character resulting from an input on the student computer, to a response server; and program instructions for the teacher's screen to be contemporaneously responsive to the sequence of Web links selected on the screen of the student's computer. However, Pellegrino teaches lessons including exercises having URLs (i.e. link to an Internet site); Web browsers (Internet browser) on the teacher's computer and the student computers for communicating through a Web server (i.e. server computer) in response to URLs received from the teacher and student computers; wherein a teacher's computer and the students' computers include program instructions responsive to inputs to cause an exercise, including a Web page (i.e. Internet site) relating to a URL, to be displayed on the screen of at least one of the student computers. See Col.3: 49-54 and Col.6: 35-43. Pellegrino teaches selectable links (e.g., selections corresponding to URLs) and immediately transmitting the URL from each link selected and each character resulting from an input on the student computer, to a response server (i.e., recording the actions taken by each student as he or she progresses through the selections in a database). See Col.22: 42-52, 64-Col.23: 2. Pellegrino teaches program instructions for the teacher's screen (i.e., Navigational

Art Unit: 3714

Element) to be contemporaneously responsive to the sequence of Web links selected on the screen of the student's computer. See Col.22: 36-46, 53-Col.23: 2. It is Examiner's position that the recording performed by the Navigational Element in Pellegrino is contemporaneously responsive to the actions taken by each student. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate the aforementioned limitations into the method and system of Ziv-El, in light of the teaching of Pellegrino, in order to enable teachers to create customized lessons incorporating lesson material including text, audio, images, video and application program files and to provide a mechanism for generating reports based on the recorded tracking data.

2. [Claims 2-3, 24-25]: Regarding Claims 2-3 and 24-25, Ziv-El does not disclose expressly wherein the teacher and the students communicate through an Internet connection or through an Internet. However, Pellegrino teaches such in Col.6: 38-42. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate the aforementioned limitations into the method and system of Ziv-El, in light of the teaching of Pellegrino, in order support remote and global use of the educational system.

3. [Claim 4]: Regarding Claim 4, Ziv-El discloses wherein the instructions for causing display of an exercise on a student's computer are executed by the teacher's computer in response to the inputs from the teacher, and wherein the exercise (e.g. spontaneous question) is displayed on a plurality of different computers. See Col.11: 29-41.

4. [Claim 5]: Regarding Claim 5, Ziv-El discloses wherein the teacher's computer includes program instructions for selecting a student response on a screen for display on the student computers. See Col.17: 18-21.
5. [Claim 6]: Regarding Claim 6, Ziv-El discloses wherein the teacher's computer is immediately responsive to an aggregate of correct and incorrect student responses. See Col.10: 65-Col.11: 5 and Col.12: 41-46.
6. [Claim 7]: Regarding Claim 7, Ziv-El does not disclose expressly wherein the teacher's computer includes program instructions responsive to teacher inputs to cause a Web page to be previewed on the screen of the teacher's computer by retrieval from the data storage server. However, Pellegrino teaches such in FIG. 34, Col.6: 11-14, and Col.16: 28-33. Therefore, at the time of the invention, it would have been obvious to incorporate the aforementioned limitation into the method and system of Ziv-El, in light of the teaching of Pellegrino, in order to facilitate lesson development.
7. [Claim 9]: Regarding Claim 9, Ziv-El does not disclose expressly wherein the instructions for causing display of the exercise on the student's computer are executed by the student's computer in response to inputs from the student (i.e. "Start Lesson" button). However, Pellegrino teaches such in Col.9: 64-Col.10: 2. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate the aforementioned limitation into the method and system of Ziv-El, in light of the teaching of Pellegrino, in order to enable a student to be presented with lesson material at the student's option.

Art Unit: 3714

8. [Claim 10]: Regarding Claim 10, Ziv-El discloses wherein the teacher's computer includes program instructions for selecting a student response on the teacher's screen for display on a class display working in combination with additional memory. See Col.17: 18-21.

9. [Claims 11, 21]: Regarding Claims 11 and 21, Ziv-El/Pellegrino does not disclose expressly wherein the teacher's computer includes program instructions for selecting a student response on the screen of the teacher's computer and subjectively modifying a score resulting from operation of the comparison and evaluation logic on response data received from at least one of the plurality of student computers and wherein the correctness of a response can be overridden by the teacher pointing to the response and arbitrarily assigning a score to the response using a dialog box. However, such is old and well known in the art. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate the aforementioned limitation into the method and system of Ziv-El/Pellegrino in order to compensate for a test evaluator disagreeing with a score generated by a computer.

10. [Claims 12 and 22]: Regarding Claims 12 and 22, Ziv-El discloses wherein the plurality of student computers are immediately responsive to a result of the comparison and evaluation logic through a feedback signal (i.e. reinforcement) receivable at each of the plurality of student computers. See Col.10: 65-Col.11: 1.

11. [Claim 15]: Regarding Claim 15, Ziv-El/Pellegrino does not disclose expressly program instructions responsive to teacher inputs to cause a Wait mode message to be sent to at least one student computer to block access to the response server. However,



Art Unit: 3714

issuing messages to block access to systems or information is old and well-known in the art. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate the aforementioned limitations into the method and system of Ziv-El/Pellegrino in order to monitor server traffic or prevent untimely or unauthorized access to the system.

12. [Claim 16]: Regarding Claim 16, Ziv-El does not disclose expressly wherein the teacher's computer and the plurality of student computers use respective Web browsers and communicate with at least one Web server; and wherein the program instructions on the student computers and the teacher's computer are provided by respective Web browsers (e.g. Student Home Page, Teacher Home Page). However, Pellegrino teaches such in Col.9: 28-38. Therefore, at the time of the invention, of the invention, it would have been obvious to one of ordinary skill in the art to incorporate the aforementioned limitation into the method and system of Ziv-El, in light of the teaching of Pellegrino, in order to present a Web browser that is appropriate for the user.

13. [Claim 19]: Regarding Claim 19, Ziv-El does not disclose expressly wherein the teacher initiates the communication of the URL to the plurality of students, and the Web page of the Web site is automatically displayed. However, Pellegrino teaches such in the Abstract. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate the aforementioned limitation into the method and system of Ziv-El, in light of the teaching of Pellegrino, in order to allow a teacher to utilize lesson material from a variety of sources, including a lesson material database, a database of existing lessons, and the Internet.

**Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ziv-El/Pellegrino as applied to claim 1 above, and further in view of Lee et al. (US 6,064,856).**

[Claim 23]: Regarding Claim 23, Ziv-El/Pellegrino does not disclose expressly wherein the teacher's computer includes program instructions for creation of an indicator on the Web page on the teacher's screen which copies to the same positions on the corresponding Web pages of the screens of the student computers. However, Lee teaches creating indicators on images (e.g., Web page) on one screen and copying them to the same positions on images on other screens (i.e., the teacher's writing on his/her screen with the result appearing simultaneously at all of the stations sharing that image). See Col.3: 48-54. It is Examiner's position that Web pages are just mere images and that they would work the same as the images disclosed in Lee without an modification to the HTML code that creates the Web pages. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate into the method and system of Ziv-El/Pellegrino the creation of an indicator on the Web page on the teacher's screen which copies to the same positions on the corresponding Web pages of the screens of the student computer, in light of the teaching of Lee, in order to enable a teacher to share what he/she writes on their screen with student computers. **Note: Examiner is requesting that Applicant provides information on how the unobvious technique of using a markup language to enable the creating**

**of indicators on web pages, as opposed to other images, and transferring those indicators to a second screen works.**

**Claims 13, 27-35, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ziv-El (US 5,438,555) in view of Pellegrino (US 6,149,441) and further in view of Shende et al. (US 6,341,212).**

1. [Claims 13,27]: Regarding Claims 13 and 27, Ziv-El/Pellegrino does not disclose expressly wherein the student computers display a window displaying at least one Web page and a question concerning the Web page and wherein the student computers display a window displaying at least one Web page associated with an external Web site and a question concerning the Web page. However, Shende teaches such in Col.5: 7-31. Evaluation of an examinee's knowledge of substantive content of a web site is disclosed by Shende:

Additionally an examinee may be asked to find specific information from any of a plurality of websites that may offer such information, such as questions 4-6 in Appendix A. Examinees may also be asked to evaluate various websites provided to the examinee and asked specific information about each of those plurality of websites. For example, the examinee may be asked, as disclosed in Appendix A, whether a particular website is sponsored by a particular corporate entity, whether the website has a financial interest in the topic, whether the website presents an impartial point of view, whether a site would be useful for preparing a report on legal issues, or whether a particular website is useful for a particular topic of interest. Again, these questions may determine the examinee's ability to determine bias, quality of information and perspective of the website creator.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate the aforementioned limitation into the method and system

of Ziv-El/Pellegrino, in light of the teaching of Shende, in order to test an examinee's ability to use an Internet browser to find answers to specific questions.

2. [Claims 28-29]: Regarding Claims 28 and 29, Pellegrino discloses wherein the teacher and the students communicate through an Internet connection or through an Internet. See Col.6: 38-42.
3. [Claim 30]: Regarding Claim 30, Ziv-El discloses wherein the instructions for causing display of an exercise on a student's computer are executed by the teacher's computer in response to the inputs from the teacher, and wherein the exercise (e.g. spontaneous question) is displayed on a plurality of different computers. See Col.11: 29-41.
4. [Claim 31]: Regarding Claim 31, Ziv-El discloses wherein the teacher's computer includes program instructions for selecting a student response on a screen for display on the student computers. See Col.17: 18-21.
5. [Claim 32]: Regarding Claim 32, Ziv-El discloses wherein the teacher's computer is immediately responsive to an aggregate of correct and incorrect student responses. See Col.10: 65-Col.11: 5 and Col.12: 41-46.
6. [Claim 33]: Regarding Claim 33, Ziv-El does not disclose expressly wherein the instructions for causing display of the exercise on the student's computer are executed by the student's computer in response to inputs from the student (i.e. "Start Lesson" button). However, Pellegrino teaches such in Col.9: 64-Col.10: 2. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate the aforementioned limitation into the method and system of Ziv-El, in light

of the teaching of Pellegrino, in order to enable a student to be presented with lesson material at the student's option.

7. [Claim 34]: Regarding Claim 34, Ziv-El/Pellegrino/Shende does not disclose expressly wherein the teacher's computer includes program instructions for selecting a student response on the screen of the teacher's computer and subjectively modifying a score resulting from operation of the comparison and evaluation logic on response data received from at least one of the plurality of student computers and wherein the correctness of a response can be overridden by the teacher pointing to the response and arbitrarily assigning a score to the response using a dialog box. However, such is old and well known in the art. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate the aforementioned limitation into the method and system of Ziv-El/Pellegrino/Shende in order to compensate for a test evaluator disagreeing with a score generated by a computer.

8. [Claim 35]: Regarding Claim 35, Ziv-El discloses wherein the plurality of student computers are immediately responsive to a result of the comparison and evaluation logic through a feedback signal (i.e. reinforcement) receivable at each of the plurality of student computers. See Col.10: 65-Col.11: 1.

9. [Claim 37]: Regarding Claim 37, Ziv-El/Pellegrino/Shende does not disclose expressly program instructions responsive to teacher inputs to cause a Wait mode message to be sent to at least one student computer to block access to the response server. However, issuing messages to block access to systems or information is old and well-known in the art. Therefore, at the time of the invention, it would have been

obvious to one of ordinary skill in the art to incorporate the aforementioned limitations into the method and system of Ziv-El/Pellegrino/Shende in order to monitor server traffic or prevent untimely or unauthorized access to the system.

**Claims 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ziv-El/Pellegrino as applied to claims 1 and 18 above, and further in view of Anderson et al. (US 6,513,042).**

1. [Claim 14]: Regarding Claim 14, Ziv-El/Pellegrino does not disclose expressly wherein at least one of the plurality of student computers has a screen which displays a separate response text box and an explanation text box; and wherein the comparison and evaluation logic is responsive to inputs to the two respective text boxes. However, Anderson teaches a screen that displays the response and explanation together in one box. See FIG.7D. Therefore, at the time of the invention, it would have been obvious to incorporate a screen that displays the response and explanation together in one text box into the method and system of Ziv-El/Pellegrino, in light of the teaching of Anderson, in order to provide a detailed score/results summary to user. Furthermore, it would have been obvious to one of ordinary skill in the art that it would have been an obvious matter of design choice whether to display a separate response text box and an explanation text box versus a single response and explanation together in one text box wherein no stated problem is resolved or unexpected result is obtained by having two separate text boxes.

2. [Claim 20]: Regarding Claim 20, Ziv-El/Pellegrino does not disclose expressly wherein the student responses are compared and evaluated against a correct answer, and where the appearance of each response to the teacher is associated with the correctness (e.g. explanation if incorrect, no explanation if incorrect) of the response. See FIG.7D. Therefore, it would have been obvious to one of ordinary skill in the art to incorporate the aforementioned limitation into the method and system of Ziv-El/Pellegrino, in light of the teaching of Anderson, in order to facilitate viewing test results.

### ***Response to Arguments***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chanda L. Harris whose telephone number is 703-308-8358. The examiner can normally be reached on M-F 6:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Hughes can be reached on 703-308-1806. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ch.  
ch.

  
S. THOMAS HUGHES  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700